Gulf of Mexico Harmful Algal Bloom Bulletin

Region: AL/MS/FL

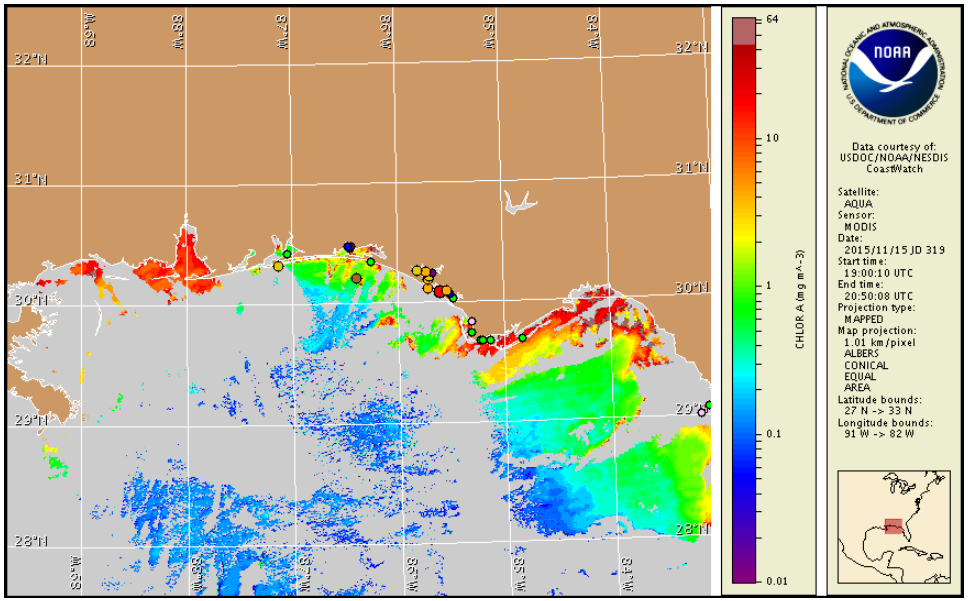
Monday, 16 November 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 12, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 6 to 13: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information for Florida can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of northwest Florida from Escambia to Gulf counties. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for along-shore northwest Florida Monday, November 16 to Thursday, November 19 is listed below:

County Region: Forecast (Duration)
Escambia County: Very Low (M, Th), Moderate (Tu-W)
Santa Rosa County: Very Low (M, Th), Moderate (Tu-W)
Okaloosa County: Moderate (M), High (Tu-W), Very Low (Th)
Okaloosa County, bay regions: Low (M-Th)
Walton County: Very Low (M-Tu, Th), High (W)
Bay County: Very Low (M-Tu, Th), High (W)
Bay County, bay regions: High (M-Th)
Gulf County: Very Low (M-Tu, Th), Low (W)
Gulf County, west bay regions-St. Joseph Bay area: Moderate (M-Tu,Th), High (W)
All Other NWFL County Regions: None expected (M-Th)
SWFL County Regions: Visit http://tidesandcurrents.noaa.gov/hab/#swfl

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at http://tidesandcurrents.noaa.gov/hab/hab_health_info.html. Reports of respiratory irritation have been received from Okaloosa, Bay and Gulf counties. Reports of dead fish were received from Escambia, Bay and Gulf counties.

Analysis

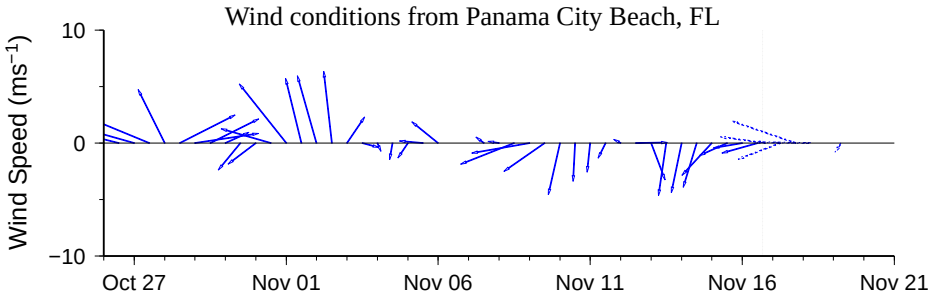
Recent water samples have identified the presence of *Karenia brevis* alongshore Escambia County, and in the bay region of Okaloosa County. Samples confirmed the presence of 'low b' *Karenia brevis* concentrations alongshore the Pensacola Beach Gulf Pier of Escambia County, and up to 'very low b' concentrations in the Choctawhatchee Bay region of Okaloosa County (FWRI; 11/10-12). Other samples from Bay regions of Okaloosa, Gulf and Franklin counties all indicates not present or background of *Karenia brevis*. Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus.Reports of respiratory irritation have been received from Okaloosa, Bay and Gulf counties (MML;11/9-12). Reports of dead fish were received from Escambia, Bay and Gulf counties (FWRI; 11/9).

In recent ensemble imagery (MODIS Aqua, 11/15), patches of elevated to very high chlorophyll (2 to >20 μg/L) with the optical characteristics of *K. brevis* are visible along- and offshore northwest Florida from Escambia to Gulf counties and 6-30 miles offshore Escambia and Santa Rosa counties. MODIS Aqua imagery also shows patches of elevated to very high chlorophyll (2 to >20 μg/L) with the optical characteristics of *K. brevis* along- and offshore the Alabama coastline in Baldwin County. Sampling of this area is

recommended.

Winds forecast Monday through Thursday may promote the continued westward transport of *K. brevis* concentrations in northwest Florida and may include the transport of *K. brevis* into Alabama.

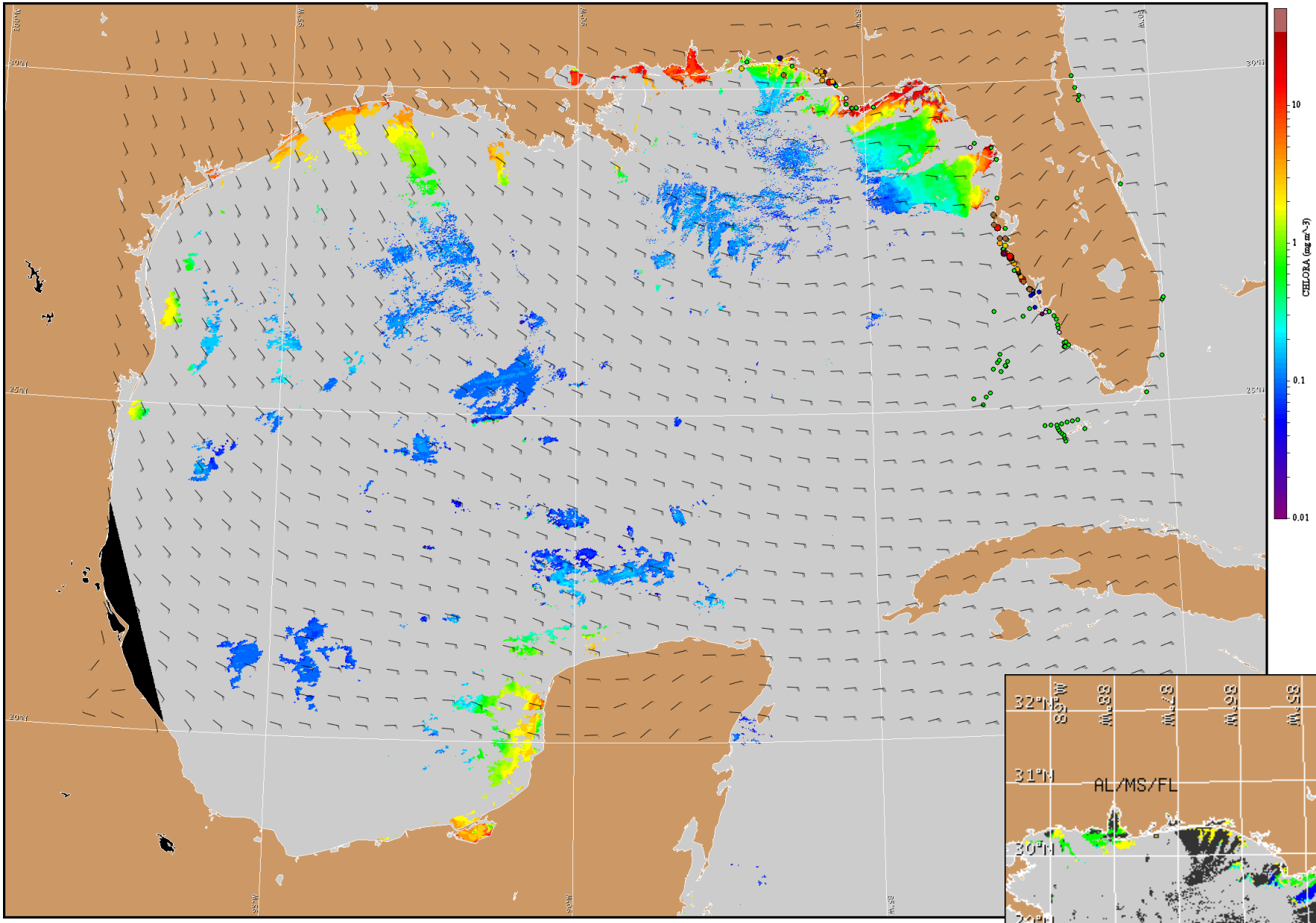
Yang, Davis



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

Wind Analysis

Escambia to Taylor counties: East winds (10-20kn, 5-10m/s) Monday through Tuesday. Southeast winds (20kn, 10m/s) Wednesday becoming south (15-20kn, 8-10m/s) Wednesday afternoon. South winds (10kn, 5m/s) shifting to north (5-10kn, 3-5m/s) Wednesday night. North to northeast winds (10-20kn) Thursday.



Satellite chlorophyll image and forecast winds for November 17, 2015 06Z with points representing cell concentration sampling data from November 6 to 13: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:
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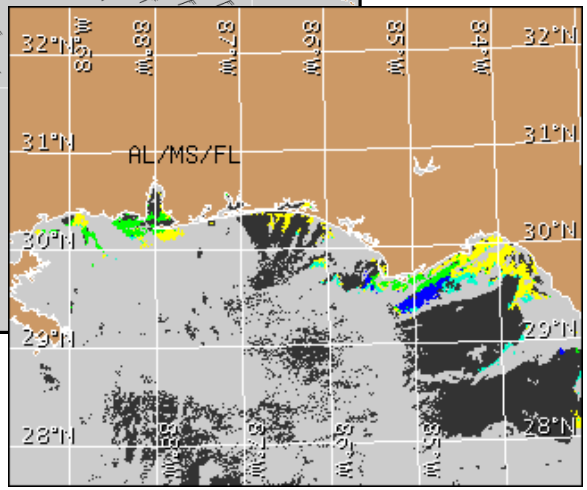

Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).